CLAIMS

We claim:

1. A computerized system for managing an enterprise storage system, comprising a storage grid manager for receiving requests for storing files from users, and for routing the requests to storage grid controllers associated with selected storage cells of the enterprise storage system where the files will be stored, wherein the selected storage cells are identified based on at least one predetermined performance parameter.

2. The system of claim 1, wherein the storage grid controllers are each associated with a single storage cell, and wherein the storage grid controllers provide resource availability information about the storage cells to the storage grid manager.

3. The system of claim 2, wherein the storage grid controllers further enforce access control specifications for the storage cells.

4. The system of claim 1, wherein the storage grid manager further maintains a mapping that associates the files with the selected storage cells in which the files are stored.

5. The system of claim 4, wherein the storage grid manager further receives requests to retrieve the files from the users, and wherein the storage grid manager consults the mapping to identify the selected storage cells and retrieve the files.

6. The system of claim 1, wherein the predetermined performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement.

7. The system of claim 1, wherein the requests are routed to the selected storage cells in identical communication protocols in which the requests are received by the storage grid manager.

8. A computerized system for managing an enterprise storage system, comprising:

a storage grid manager for receiving requests for storing files from users; and

a set of storage grid controllers associated with a set of storage cells of the enterprise storage system, wherein the storage grid manager identifies selected storage cells for storing the files based on at least one predetermined performance parameter and routes the requests to the storage grid controllers associated with the selected storage cells.

9. The system of claim 8, wherein each of the set of the storage grid controllers are each associated with a single storage cell, and wherein the set of storage grid controllers provide resource availability information about the set of storage cells to the storage grid manager.

10. The system of claim 9, wherein the set of storage grid controllers further enforce access control specifications for the storage cells.

11. The system of claim 9, wherein the storage grid manager further maintains a mapping that associates the files with the selected storage cells in which the files are stored.

12. The system of claim 11, wherein the storage grid manager further receives requests to retrieve the files from the users, and wherein the storage grid manager consults the mapping to identify the selected storage cells and retrieve the files.

13. The system of claim 9, wherein the predetermined performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a desired cell usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement.

14. The system of claim 9, wherein the requests are routed to the selected storage cells in identical communication protocols in which the requests are received by the storage grid manager.

15. A computer-implemented method for storing files in an enterprise storage system, comprising:

receiving requests on a storage grid manager to store the files;

identifying storage cells of the enterprise storage system for storing the files based on at least one performance parameter;

routing the requests from the storage grid manager to storage grid controllers associated with the storage cells; and

storing the files in the storage cells.

16. The method of claim 15, wherein the at least one performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a desired cell usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement.

17. The method of claim 15, wherein the routing step comprises routing the requests to the storage cells in identical communication protocols in which the requests are received by the storage grid manager.

18. The method of claim 15, further comprising the storage grid controllers providing resource availability information about the set of storage cells to the storage grid manager, prior to the identifying step.

19. The method of claim 15, further comprising the storage grid controllers enforcing access control specifications for the storage cells, prior to the storing step.

20. The method of claim 15, further comprising the storage grid manager maintaining a mapping that associates the files with the storage cells in which the files are stored, after the storing step.

21. The method of claim 20, further comprising retrieving the files from the appropriate storage cells with the following steps:

receiving requests on the storage grid manager to retrieve the files;

consulting the mapping to identify the storage cells; and

retrieving the files from the storage cells.

22. A computer-implemented method for retrieving files from an enterprise storage system, comprising:

receiving requests on a storage grid manager to retrieve the files;

identifying storage cells of the enterprise storage system in which the files are stored based a mapping;

routing the requests from the storage grid manager to storage grid controllers associated with the storage cells; and

retrieving the files from the storage cells.

23. The method of claim 22, further comprising storing the files, prior to the receiving step, with the following steps:

receiving requests on the storage grid manager to store the files;

identifying storage cells of the enterprise storage system for storing the files based on at least one performance parameter;

routing the requests to store the files from the storage grid manager to storage grid controllers associated with the storage cells; and

storing the files in the storage cells.

24. The method of claim 23, wherein the at least one performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a desired cell usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement.

25. The method of claim 22, wherein the routing step comprises routing the requests to the storage cells in identical communication protocols in which the requests are received by the storage grid manager.

26. The method of claim 22, further comprising the storage grid controllers enforcing access control specifications for the storage cells, prior to the retrieving step.

27. A program product stored on a recordable medium for managing an enterprise storage system, which when executed, comprises a storage grid manager for receiving requests for storing files from users, and for routing the requests to storage grid controllers associated with selected storage cells of the enterprise storage system where the files will be stored, wherein the selected storage cells are identified based on at least one predetermined performance parameter.

28. The program product of claim 27, wherein the storage grid controllers are each associated with a single storage cell, and wherein the storage grid controllers provide resource availability information about the storage cells to the storage grid manager.

29. The program product of claim 28, wherein the storage grid controllers further enforce access control specifications for the storage cells.

30. The program product of claim 27, wherein the storage grid manager further maintains a mapping that associates the files with the selected storage cells in which the files are stored.

31. The program product of claim 30, wherein the storage grid manager further receives requests to retrieve the files from the users, and wherein the storage grid manager consults the mapping to identify the selected storage cells and retrieve the files.

32. The program product of claim 27, wherein the predetermined performance parameter is selected from the group consisting of a user identity, a storage cost, a user requirement, a desired cell usage pattern, a security requirement, a storage cell availability, a redundancy requirement and a network optimization requirement.

33. The program product of claim 27, wherein the requests are routed to the selected storage cells in identical communication protocols in which the requests are received by the storage grid manager.